

National Organic Standards Board Meeting, May 6-8, 2002, Austin Texas

Processing Committee: Final Recommendation DEAE

Introduction:

Diethylaminoethanol (DEAE) is petitioned for use in boiler chemical systems to prevent carbonic acid corrosion in return lines. DEAE inhibits corrosion by neutralizing carbonic acid in steam and steam condensates and by scavenging free oxygen. DEAE is a volatile amine designed to travel with boiler steam used to sterilize product packaging and to steam food and livestock feed products. While very few processors have migrated to modern technologies such as reverse osmosis and stainless steel systems eliminating the need for volatile amines some processors continue to use volatile amines, such as DEAE to maintain the integrity of their boiler systems.

Background:

In order for a substance to be used in or on processed products labeled as “organic” or “made with organic” the substance must be listed in section 205.605 of the Final Rule as an allowed nonsynthetic or an allowed synthetic. Consequently several companies within the processing industry recognized the need for volatile amines such as DEAE to be petitioned.

General information concerning boiler systems and the chemicals used to maintain system integrity was initially presented to the NOSB at Buena Park, California in 2001. At this time, the NOSB and members of the organic community learned how volatile amines such as DEAE are used to maintain boiler system integrity as well as how certain processors were maintaining organic integrity in this challenging environment. Through this presentation and the more recent information submitted the processing committee has learned that some currently certified processors have chosen to invest in modern technologies such as reverse osmosis and stainless steel systems to alleviate the use of volatile amines such as DEAE. A survey of North American processors indicates that as many as 25% to 30% of processors still use DEAE on a regular basis. Further, some of these processors indicated they did not use volatile amines by turning them off during organic product runs.

The TAP reviewers unanimously found DEAE to be synthetic and also unanimously recommended the material be prohibited for use in products labeled as “organic.” The FOIA information provided as part of the TAP review was unclear as to the GRAS status of DEAE. Further, in reviewing both the TAP and the FOIA information the processing committee agreed with the TAP review findings that DEAE does not meet the criteria established by OFPA and the Final Rule.

The committee also received substantial industry input depicting the need for DEAE. Specifically, the entities providing input expressed concern that the prohibition of DEAE will present challenges for certain processors in the organic industry and requested the processing committee and the NOSB consider the current need for the use of DEAE as a processing aid.

After much consideration of the industry information submitted concerning the current need for DEAE by some processors operating within the organic industry the processing committee still concluded, as did the TAP review, that DEAE is not compatible with the criteria set forth in OFPA and the Final Rule. However, the committee also diligently considered input from industry experts concerning the immediate impact of prohibiting a substance currently used by some processors operating within the organic industry. The processing committee offers the following recommendation for DEAE.

Recommendation:

205.605 (b) Synthetics allowed:

Diethylaminoethanol (DEAE) – For use as a boiler water additive for packaging sterilization only. For use as a boiler water additive in livestock feed until October 21st, 2005.

NOTE FOR NOP STAFF: The above recommendation reflects the annotation as amended by the NOSB at the Austin meeting and not the original annotation as forwarded by the processing committee.

Committee Vote:

Approve – 4
Disapprove - 0
Recuse – 2
Absent - 1

Conclusion:

This recommendation prohibits direct food contact by only allowing DEAE to be used as a boiler water additive for packaging sterilization in foods labeled as organic. This recommendation also allows DEAE to be used as a boiler water additive for products labeled as made with organic and for livestock feed products thus minimizing the immediate industry impact of this currently used material. Further, this recommendation establishes an accelerated date for removal from the national list on October 21st, 2005.